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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/675,147

09/29/2000

Yoji Serizawa

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09/03/2004

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EXAMINER

RAHIMI, IRAJ A

ART UNIT

PAPER NUMBER

2622

DATE MAILED: 09/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/675,147

Applicant(s)

SERIZAWA, YOJI

Examiner

(Iraj) Alan Rahimi

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2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


TWYLER LAMB
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1, 2, 4-5, 7, 9-12, 14-15, 17, 19-22 and 24-26 rejected under 35 U.S.C. 102(b) as being anticipated by Hillmann et al. (US patent 5,995,774).

Regarding claim 1, Hillmann discloses a printing apparatus (Fig. 1) to which an expendable 11 having a memory 14 for storing and holding information that pertains to a use state, and a recording agent used in a print process is detachably attached (Fig. 2), comprising:

memory access means 16 for making read and write to the memory in the expendable; and

setting 16 means for setting inhibition/permission of data write with respect to an address space in the memory (column 6, lines 36-54).

Regarding claim 2, Hillmann discloses the apparatus according to claim 1, wherein said memory access means and the memory are connected via a serial communication line (column 5, lines 3-9 and Fig. 1).

Regarding claim 4, Hillmann discloses the apparatus according to claim 1, further comprising:

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detection means for detecting an amount of an expendable agent in the expendable (column 4, lines 12-15); and

expendable agent update means for writing the expendable agent amount detected by said detection means at a predetermined address position of the memory via said memory access means (column 6, lines 9-25), and

wherein said setting means sets to inhibit write to the predetermined address position when said detection means detects that the remaining amount of the expendable agent becomes not more than a predetermined amount (column 6, lines 33-54).

Regarding claim 5, Hillmann discloses the apparatus according to claim 1, wherein one or a plurality of predetermined amounts of the expendable agent are determined in advance, when each of the predetermined amounts has been reached, data indicating that the predetermined amount has been reached is written in an address area corresponding to that predetermined amount at a different timing, and write to the address area is set to be inhibited (column 6, lines 4-54).

Regarding claim 7, Hillmann discloses a printing apparatus comprising: detaching/attaching means for detaching or attaching an expendable (column 5, lines 64-65) having a memory 14 capable of setting a locking state for inhibiting data writing with respect to at least a predetermined area in the memory (column 6, lines 52-54);

detection means for detecting state of the expendable (column 4, lines 12-15)

write means for writing result detected by said detection means to the memory (column 6, lines 4-32); and

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locking state control means for controlling the locking state of the memory on the basis of the result of said expendable detected by detection means (column 6, lines 36-54).

Regarding claim 9, Hillmann discloses the apparatus according to claim 7, wherein said detection means detects an amount of an expendable agent in the expendable (column 4, lines 12-15).

Regarding claims 11 and 21 arguments analogous to those presented for claim 1, are applicable.

Regarding claims 12 and 22 arguments analogous to those presented for claim 2, are applicable.

Regarding claims 10, 14, 20 and 24 arguments analogous to those presented for claims 4, are applicable.

Regarding claims 15, 25 and 26 arguments analogous to those presented for claim 5, are applicable.

Regarding claim 17, arguments analogous to those presented for claim 7, are applicable.

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Regarding claim 19, arguments analogous to those presented for claim 9, are applicable.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hillmann (US patent 5,995,774) in view of Applegate (US patent 5,995,774).

Regarding claim 6, Hillmann does not disclose the apparatus according to claim 1, wherein the memory in the expendable includes a management address area which stores information indicating whether or not write to an address that stores the use state is permitted, and said setting means sets data stored at the management address.

Applegate discloses the memory in the expendable includes a management address area which stores information indicating whether or not write to an address that stores the use state is permitted, and said setting means sets data stored at the management address (Table 1).

At the time of invention it would have been obvious to a person skilled in the art, to use management address area in the memory.

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The suggestion/motivation to do so would have been to allow application of escape hatches that can be activated by the user to prevent certain type of information from being stored in the EPROM.

Therefore, it would have been obvious to combine Hillmann with Applegate to obtain the invention as specified in claim 6.

Regarding claim 16, arguments analogous to those presented for claim 6, are applicable.

4. Claims 3, 8, 13, 18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hillmann (US patent 5,995,774) in view of Purcell (International Publication Number WO 98/52762).

Regarding claim 3, Hillmann does not disclose the apparatus according to claim 1, wherein said memory access means and the memory are connected via non-contact communication means.

Purcell discloses on page 1, lines 34-37 and page 2, lines 1-8 the memory element in the paper roll of media communicates with the printer electronics using Radio Frequency (RF).

Hillmann and Purcell are combinable because they are from the same filed of endeavor that is printers having detachable expendable with memory.

At the time of invention it would have been obvious to a person skilled in the art, to use RF for communication between the memory and other parts of the printer.

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The suggestion/motivation to do so would have been to reduce the reliability problems during the data transfer caused by mechanical contacts, vibration and movement of the expendable.

Therefore, it would have been obvious to combine Hillmann with Purcell to obtain the invention as specified in claim 3.

Regarding claims 8, 13, 18 and 23 arguments analogous to those presented for claim 3, are applicable.

Other Prior Art Cited

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee (US patent 5,708,912) discloses a process cartridge comprising a non-volatile memory for storing data value.

Ito et al. (US patent 6,658,219) discloses a method and recording medium for detecting improper cartridge.

Kato (US patent 6,347,853) discloses inkjet recorder with remaining ink volume detector.

Shoki (US patent 6,360,174) discloses apparatus for detecting quantity level of residual ink in ink cartridge.


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Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Iraj) Alan Rahimi whose telephone number is 703-306-3473. The examiner can normally be reached on Mon.-Fri. 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles can be reached on 703-305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Alan Rahimi
August 30, 2004


TWYLER LAMB
PRIMARY EXAMINER